CLAIMS

What is claimed is:

1. A method for determining a price that maximizes revenue comprising:

providing a demand curve;

calculating a first angle, said first angle calculated by determining the angle between a first reference line and a second reference line;

calculating a second angle, said second angle calculated by determining the angle between said first reference line and a line running tangent to said demand curve at said price;

determining whether said first angle is equal to said second angle; and

changing said price and calculating said first angle, calculating said second angle, and determining whether said first angle is equal to said second angle until a price is found at which said first angle is equal to said second angle.

2. The method of Claim 1 wherein said demand curve can be plotted on a graph that includes an origin and that indicates units on a first axis and price on a second axis, and wherein said first reference line is parallel to said second axis and passes through said demand curve at said price, said second reference line passing through said origin and passing through said demand curve at said price.

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3. The method of Claim 2 wherein said initial price is the lowest price on said demand curve and wherein said price is increased incrementally until a price is found at which said first angle equals said second angle.

4. The method of Claim 2 wherein said demand curve has an arbitrary structure that is concave.

5. For a product having a demand curve, a method for determining prices that maximize revenue comprising:

performing a geometric calcuJation using a first price so as to determine a plurality of additional prices;

determining geometric error associated with said first price and said additional prices;

changing said first price when said first price does not minimize said geometric error; and

performing said geometric calculation, determining said geometric error and changing said first price until a first price is found that minimizes said geometric error.

6. The method of Claim 5 wherein said demand curve can be plotted on a graph that includes units on a first axis and price on a second axis, and wherein performing a geometric calculation using a first price further comprises:

calculating a tangent line that is tangent to said demand curve at said first price;

determining the location of a second reference line;

determining where said second reference line intersects a vertical reference line; and

calculating an additional price that corresponds to the determined intersection between said second reference line and said vertical reference line.

7. The method of Claim 6 wherein determining location of said second reference line further comprises locating said second reference line such that the angle between said second reference line and a first reference line is equal to the angle between said tangent line and said first reference line, said first reference line and said second reference line extending through said demand curve at said first price.

8. For a plurality of products having demand curves, a method for determining prices that maximize revenue for each of said products comprising:

determining an initial price for each product by multiplying the cost of each product by a multiplier;

determining additional prices that maximize revenue for each product; determining the total cost of said plurality of products;

changing said multiplier when said total cost of said products is not equal to said budget; and

continuing to perform said steps of determining an initial price, determining additional prices, determining the total cost, and changing said multiplier until said total cost of said products is near the amount of said budget.

9. The method of Claim 8 wherein determining said additional prices that maximize revenue further comprises:

performing a geometric calculation using said initial price and using a first price so as to determine a plurality of additional prices;

determining geometric error associated with said first price and said additional prices;

changing said first price when said first price and said additional prices

do not minimize said geometric error; and

performing said geometric calculation, determining said geometric error and changing said first price until a first price and additional prices are found that minimize said geometric error.

10. The method of Claim 8 wherein said demand curve has an arbitrary structure that is concave over a range of prices.

11. In a computer system including a processor coupled to a bus, and a memory unit coupled to the bus for storing information, a computer-implemented method for determining prices that maximize revenue for a product having a demand curve comprising:

performing a geometric calculation using a first price and using said demand curve so as to determine a plurality of additional prices;

determining geometric error associated with said first price and said additional prices;

changing said first price when said first price does not minimize said geometric error; and

performing said geometric calculation, determining said geometric error and changing said first price until a first price and additional prices are found that minimize said geometric error.

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12. The computer-implemented method of Claim 11 wherein said step of performing a geometric calculation using a first price further comprises:

calculating a tangent line that is tangent to said demand curve at said first price;

determining the location of a second reference line;

determining where said second reference line intersects a vertical reference line; and

calculating an additional price that corresponds to the determined intersection between said second reference line and said vertical reference line.

13. The computer-implemented method of Claim 12 wherein determining location of said second reference line further comprises locating said second reference line such that the angle between said second reference line and a first reference line is equal to the angle between said tangent line and said first reference line, said first reference line and said second reference line extending through said demand curve at said first price.

14. The computer-implemented method of Claim 12 wherein said demand curve has an arbitrary structure that is concave over a range of prices.

15. The computer-implemented method of Claim 12 wherein said vertical reference line extends along said y-axis for determining a second price.

16. A computer-readable storage medium storing instructions that, when executed by a computer, cause the computer to perform a method for determining prices that maximize revenue for a product having a demand curve comprising:

performing a geometric calculation using a first price and using said demand curve so as to determine a plurality of additional prices;

determining geometric error associated with said first price and said additional prices;

changing said first price when said first price does not minimize said geometric error; and

performing said geometric calculation, determining said geometric error and changing said first price until a first price and additional prices are found that minimize said geometric error.

17. The computer-readable storage medium of Claim 16 wherein said demand curve has an arbitrary structure that is concave.

18. The computer-readable storage medium of Claim 16 wherein said step of performing a geometric calculation using a first price further comprises:

calculating a tangent line that is tangent to said demand curve at said first price;

determining the location of a second reference line;

determining where said second reference line intersects a vertical reference line; and

calculating an additional price that corresponds to the determined intersection between said second reference line and said vertical reference line.

19. The computer-readable storage medium of Claim 16 wherein determining location of said second reference line further comprises locating said second reference line such that the angle between said second reference line and a first reference line is equal to the angle between said tangent line and said first reference line, said first reference line and said second reference line extending through said demand curve at said first price.

20. The computer-readable storage medium of Claim 16 wherein said vertical reference line extends along said y-axis for determining a second price and wherein said vertical reference line is moved to a subsequent price upon each calculation of a new price.